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16 JUL 1965

MEMORANDUM FOR: See Distribution

SUBJECT:

U-2 Characteristics

- l. When and if we purchase a new or improved U-2, our requirements should be stated in specific terms and as completely as possible. An initial list of desired characteristics of a new model U-2 is attached for your reference and comment.
- 2. Please examine these characteristics carefully and add whatever you think necessary and suggest changes or deletion of others. These complete data should be available for the meeting with Mr. Johnson which will take place Tuesday morning, 20 July 1965.
- 3. Please submit your comments in informal memoranda to Plans/FA/OSA.

(Signed)		25X1
(218110m)		
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A1	O/FA/OSA	

Attachment:

As stated

Plans/FA/OSA/WAS:lem (16 July 65)

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## DESIRED CHARACTERISTICS OF NEW MODEL U-2

The improved U-2 should be a subsonic, very high altitude reconnaissance weapon system. Systems and compone gros and foor sat:

ents should be integrated to provide the least possible ss weight at altitude, increased maneuverability at altitude, a high rate of climb particularly in the 60 to 70 thousand t range. It should have a standard basic configuration isfactory to both the Agency and SAC.	
a. Reach 70,000 feet in one hour or less from takeoff at maximum gross weight.	
b. A range between nautical miles at or above 70,000 feet.	25X1
c. Mid-range operational altitudes over denied territory	25X1
d. Increased maneuverability at altitude to increase the survivability margin against SAM defenses.	
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f. High altitude engine relight capability and flameout prevention.	
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<ol> <li>Internal installation of all sensors and equipment except for quick attach/removal external fuel tanks. Drop tanks are desired.</li> </ol>	
j. Compatability with existing and planned sensor systems.	•
k. Structurally capable of adaptation to carrier	

operation. Modification for field installation of carrier arresting gear is desired.

	l.	Provision	for	ELINT	gear
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- m. Removable wing leading edge to permit quick-change installation of wires, cabling, etc.
  - n. High mach (.9) wing.
- o. Optional installation of two additional engines, probably J-85.
- p. Incorporate a fuselage balance tank in which fuel would be used for center of gravity control instead of dead weight ballast.
- q. Engine improvement to permit operation at approximately  $665^{\circ}\text{C}$  EGT.
  - s. AC electrical system.
- t. A navigation system capable of positioning the U-2 accurately either at night or over an undercast. The proposed Doppler system and image intensifier may satisfy this requirement.
  - u. Cockpit re-design.
  - v. Improved life support and ejection system.
- w. Aerodynamic surface controls to permit more stability at stall.

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